

IN THE CLAIMS:

Please amend pending claim 82 to be dependent from claim 77.

Please amend pending claim 97 to replace --either-- for [e ither].

113. (Currently Amended) A method for extracting digital watermarking image data or digital watermarking audio data from a digital image, audio, or video data sample, as an aid to authenticating the source or authorization of unlabeled digital data for use or output, said method including the steps of:

- a) inputting a set of labeled digital data and unique key data containing information of locations of watermark data imposed as a label on the labeled digital data;
- b) mapping the set of labeled digital data into a format suitable for orthogonal transformation;
- c) performing an orthogonal transformation on the formatted labeled data to produce a set of labeled data transform coefficients;
- d) using the unique key to extract transform coefficients of orthogonally transformed watermark data from the locations in the set of labeled data transform coefficients specified in the key;
- e) using an inverse orthogonal transformation on the transformed watermark data to retrieve the embedded watermark data;
- f) formatting the embedded watermark data into a format suitable for orthogonal transformation;
- g) performing an orthogonal transformation on the formatted watermark data to reproduce the set of watermark data transform coefficients for use in generating the set of unlabeled digital data;

wherein the orthogonal transform performed on the labeled data is selected from the group consisting of a Discrete Cosine Transform (DCT); a Fourier transform; a Walsh- Hadamard transform; a Haar transform; a sine transform; and a Wavelet transform.

115. (Currently Amended) A method for extracting digital watermarking image data or digital watermarking audio data from a digital image, audio, or video data sample, as an aid to authenticating the source or authorization of unlabeled digital data for use or output, said method including the steps of:

- a) inputting a set of labeled digital data and unique key data containing information of locations of watermark data imposed as a label on the labeled digital data;
- b) mapping the set of labeled digital data into a format suitable for orthogonal transformation;
- c) performing an orthogonal transformation on the formatted labeled data to produce a set of labeled data transform coefficients;
- d) using the unique key to extract transform coefficients of orthogonally transformed watermark data from the locations in the set of labeled data transform coefficients specified in the key;
- e) using an inverse orthogonal transformation on the transformed watermark data to retrieve the embedded watermark data;
- f) formatting the embedded watermark data into a format suitable for orthogonal transformation;

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g) performing an orthogonal transformation on the formatted watermark data to reproduce the set of watermark data transform coefficients for use in generating the set of unlabeled digital data;

wherein the inverse orthogonal transform performed on the watermark data is selected from the group consisting of an inverse Discrete Cosine Transform (DCT); an inverse Fourier transform; an inverse Walsh-Hadamard transform; an inverse Haar transform; an inverse sine transform; and an inverse Wavelet transform.

122. (Currently Amended) A method for extracting digital watermarking image data or digital watermarking audio data from a digital image, audio, or video data sample, as an aid to authenticating the source or authorization of unlabeled digital data for use or output, said method including the steps of:

- a) inputting a set of labeled digital data and unique key data containing information of locations of watermark data imposed as a label on the labeled digital data;
- b) mapping the set of labeled digital data into a format suitable for orthogonal transformation;
- c) performing an orthogonal transformation on the formatted labeled data to produce a set of labeled data transform coefficients;
- d) using the unique key to extract transform coefficients of orthogonally transformed watermark data from the locations in the set of labeled data transform coefficients specified in the key;
- e) using an inverse orthogonal transformation on the transformed watermark data to retrieve the embedded watermark data;
- f) formatting the embedded watermark data into a format suitable for orthogonal transformation;
- g) performing an orthogonal transformation on the formatted watermark data to reproduce the set of watermark data transform coefficients for use in generating the set of unlabeled digital data;

wherein the labeled digital data is obtained from a sample stream representing digitized video and the labeled digitized video is obtained from selected from the group consisting of a Video Compact Disc (VCD) played on a VCD player; a Laser Disc (LD) played on a LD player; a Digital Versatile Disc (DVD) played on a DVD player; a digitized movie or still image contained within a video game or other software or a digital signal transmitted over a communications channel.

124. (Currently Amended) A method for extracting digital watermarking image data or digital watermarking audio data from a digital image, audio, or video data sample, as an aid to authenticating the source or authorization of unlabeled digital data for use or output, said method including the steps of:

- a) inputting a set of labeled digital data and unique key data containing information of locations of watermark data imposed as a label on the labeled digital data;
- b) mapping the set of labeled digital data into a format suitable for orthogonal transformation;
- c) performing an orthogonal transformation on the formatted labeled data to produce a set of labeled data transform coefficients;

d) using the unique key to extract transform coefficients of orthogonally transformed watermark data from the locations in the set of labeled data transform coefficients specified in the key;

e) using an inverse orthogonal transformation on the transformed watermark data to retrieve the embedded watermark data;

f) formatting the embedded watermark data into a format suitable for orthogonal transformation;

g) performing an orthogonal transformation on the formatted watermark data to reproduce the set of watermark data transform coefficients for use in generating the set of unlabeled digital data;

wherein the labeled digital data is obtained from a sample stream representing one or more channels of digitized sound or music and the labeled digitized sound or music is obtained from the group consisting of a Compact Disc (CD) played on a CD player; a Digital Audio Tape (DAT) played on a DAT player; a Laser Disc (LD) played on a LD player; from a Video Compact Disc (VCD) played on a VCD player.

125. (Currently Amended) A method for extracting digital watermarking image data or digital watermarking audio data from a digital image, audio, or video data sample, as an aid to authenticating the source or authorization of unlabeled digital data for use or output, said method including the steps of:

a) inputting a set of labeled digital data and unique key data containing information of locations of watermark data imposed as a label on the labeled digital data;

b) mapping the set of labeled digital data into a format suitable for orthogonal transformation;

c) performing an orthogonal transformation on the formatted labeled data to produce a set of labeled data transform coefficients;

d) using the unique key to extract transform coefficients of orthogonally transformed watermark data from the locations in the set of labeled data transform coefficients specified in the key;

e) using an inverse orthogonal transformation on the transformed watermark data to retrieve the embedded watermark data;

f) formatting the embedded watermark data into a format suitable for orthogonal transformation;

g) performing an orthogonal transformation on the formatted watermark data to reproduce the set of watermark data transform coefficients for use in generating the set of unlabeled digital data;

wherein the watermark digital data includes one or more data items selected from the group consisting of an owner's logo; an owner's trademark; a personal identification; an artist's recorded voice; and general terms for publisher distribution.